

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-008804**Date Inspected:** 03-Sep-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1845**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 745**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Liu Xiao Zhong, Mr. Sun Bo

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bay 1

ZPMC issued "Inspection Notification Sheet" number 4141 informing QA that ZPMC has completed ultrasonic inspections of OBG cross beam welds: CB202F-015-001 and CB202F-015-002. This QA Inspector observed ZPMC QC personnel had previously marked these welds as being ultrasonically accepted. This QA Inspector performed ultrasonic inspections of approximately 10 percent length of both welds and items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspections see the TL6027 Ultrasonic Test Report.

OBG Bay 1

ZPMC issued "Inspection Notification Sheet" number 4141 informing QA that ZPMC has completed ultrasonic inspections of OBG deck plate closed rib welds: DP3010-001-013, DP3040-001-026, DP3040-001-027, DP3048-001-026, DP3048-001-027. This QA Inspector observed ZPMC QC personnel had previously marked

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these welds as being ultrasonically accepted. This QA Inspector performed ultrasonic inspections of approximately 10 percent length of the welds listed above and items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on this inspections see the TL6027 Ultrasonic Test Report.

Tower Bay 11

This QA Inspector observed ZPMC welder Mr. Wanh Yin Sheng, stencil 040775 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to repair weld ESD-SPSA3-53. This QA Inspector observed that the base material where the welding is to being performed appears to have been preheated to a minimum of 180 degrees Celsius as required by the welding procedure. This QA Inspector measured a welding current of approximately 290 amps and 28.0 volts. ZPMC QC Inspector Mr. Fu Wei Min informed this QA Inspector that this weld repair is to fix areas of the weld that have been ultrasonically rejected and this repair is being performed as directed on document T-WR1999. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Ming Yang, stencil 046706 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to repair weld WSD1-SPSA3-53. This QA Inspector observed that the base material where the welding is being performed appears to have been preheated to a minimum of 180 degrees Celsius as required by the welding procedure. This QA Inspector measured a welding current of approximately 300 amps and 30.0 volts. ZPMC QC Inspector Mr. Fu Wei Min informed this QA Inspector that this weld repair is to fix areas of the weld that have been ultrasonically rejected and this repair is being performed as directed on document T-WR2069. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yang Hong Jan, stencil 070254 is using flux cored welding procedure WPS-4332-TC-P5-F to add weld material to the ends of skin plate welds WSD1-FDSA4-4C/D-75 and WSD1-FDSA4-4C/D-76. This QA Inspector observed that the base material where the welding is being performed appears to have been preheated to a minimum of 180 degrees Celsius as required by the welding procedure. This QA Inspector measured a welding current of approximately 270 amps and 31.0 volts. ZPMC QC Inspector Mr. Mr. Fu Wei Min informed this QA Inspector that this weld repair is to fix areas of the weld that have been ultrasonically rejected and this repair is being performed as directed on document T-WR2069. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jin Rong, stencil 066471 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to add weld material to skin plate weld WSD1-FESA4-4A/F as directed on document T-WR2073. This QA Inspector observed that the base material where the welding is being performed appears to have been preheated to a minimum of 180 degrees Celsius as required by the welding procedure. This QA Inspector measured a welding current of approximately 280 amps and 30.9 volts. Items observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

See above.

Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
